

PROCEEDINGS
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FOUR NEW NORTH AMERICAN DIPTERA.

BY J. R. MALLOCH.

In this paper I have described four new species of Diptera, the types of three of which are in the collection of the Illinois State Laboratory of Natural History. The type of *Chironomus macateei* is in the collection of W. L. McAtee, Washington, D. C.

Chironomus macateei and *Metriocnomus annuliventris* belong to Chironominae, *Sapromyza littoralis* to Sapromyzidæ, and *Meoneura nigrifrons* to Milichinæ, a subfamily of Agromyzidæ.

The figures of the hypopygia present one side only, viewed from above.

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Chironomus macateei n. sp.

Male.—Pale yellow, subopaque. Antennal flagellum pale brownish, plumes and palpi yellow. Abdomen yellowish, green at base, yellow on apical half, seventh segment and basal portion of hypopygium black. Legs yellow, the hind tibiae with the usual black apical comb, wings clear, veins pale yellow, cross vein clear. Halteres yellow. Hairs on body and legs whitish yellow.

Frontal tubercles indistinguishable; antennae elongate, about $1\frac{1}{2}$ times as long as head and thorax together. Hypopygium as Figure 1, the inferior process much elongated. Legs slender, fore tarsi without long hairs, basal joint one-fifth longer than fore tibiae (42:35), second joint one-tenth longer than third (22:20); mid and hind legs with long hairs. Wings rather broad and short, third and fourth veins ending at equal distances before and behind apex, respectively; cubitus forking distinctly, but not greatly beyond the cross vein.

Female.—Agrees with male in color except that the abdomen has only one black mark, that on the seventh dorsal segment.

Leg proportions and wing venation as in male.

Length: 3 mm.

Type locality.—Plummers Island, Md. August 10–17, 1912 (W. L. McAtee). Allotype: Maryland, near Plummers Island, July 4, 1914 (W. L. McAtee). Type and allotype are in collection of W. L. McAtee.

Named in honor of the collector in recognition of many favors received by the writer.

The species bears a superficial resemblance to *pallidus* Johannsen, which name was borne by one of the specimens. Separable by the entirely yellow legs and thorax, the differently colored abdomen and form of the hypopygium.

***Metriocnemus annuliventris* n. sp.**

Male.—Yellow, slightly shining. Head yellow; scape of antennae glossy black-brown, flagellum fuscous, yellow at base, plumes brown; palpi pale brown. Thoracic vittae, the greater part of sternopleura, a spot in front of wing base on pleura, and postnotum dark brown. Abdomen yellow, apices and bases of the segments conspicuously marked with black-brown. Legs yellow, mid and hind coxae brownish.

Frontal tubercles absent; antennae about 1.5 as long as head and thorax combined; palpi much longer than height of head. Pronotum rather broad, continued to upper margin of mesonotum, the latter not much produced anteriorly. Hypopygium with weak dorsal plate, the apical portion of lateral arm consisting of two processes (Fig. 2). Legs slender, mid and hind pairs with long hairs; fore tarsi without long hairs, basal joint about four-fifths as long as fore tibiae. Third vein extending to beyond beginning of curve at apex of wing and but little further from the apex than fourth vein at its apex; cubitus forking slightly beyond cross vein; surface hairs on wings rather dense.

Length: 4 mm.

Type locality.—Stanford University, Cal., March, 1906 (J. M. Aldrich).

This species resembles *flavifrons* Johannsen, but differs in having the apices of the abdominal segments as well as their bases blackened and in having the cubitus forking distal of the cross vein.

The present species belongs to the subgenus *Brillia* Kieffer, which is distinguished from *Metriocnemus* sen. str. by the bifid apical hypopygial

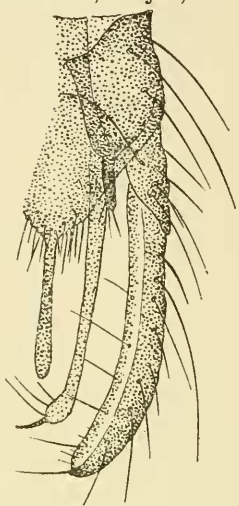


FIG. 1

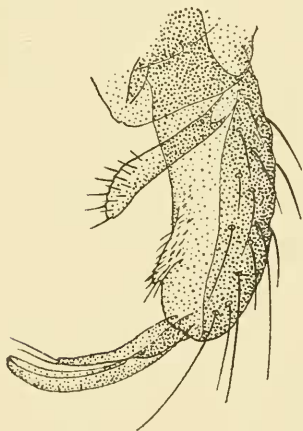


FIG. 2

process and the well developed pulvilli. I hesitate accepting this subgenus as a valid one in the absence of females and information as to whether that sex has coordinated characters which permit of their association with the males in a subgeneric treatment of the group.

Sapromyza littoralis n. sp.

Male.—Yellow, shining. Frons opaque, entire head yellow, the arista brown. Mesonotum with very slight grayish pruinescence. Legs entirely yellow. Halteres yellow. Hairs and bristles on body black.

Head buccate in profile, the frons distinctly and obtusely produced anteriorly, face slightly receding towards mouth; width of frons one-half that of head; orbital bristles becoming shorter anteriorly, the anterior one slightly beyond middle of orbit; cheek over half as high as eye, almost bare, without distinct hair at anterior angle; eye small, slightly higher than long. Mesonotum with four pairs of strong dorso-centrals, the anterior pair distinctly in front of suture; acrostichals in two rows, reaching to a point in front of anterior dorso-centrals. Abdomen short and stout, its length not equal to that of thorax, the dorsum generally flattened; apices of all segments with distinct black bristles; hypopygium stout, not laterally compressed as in *harti*; last ventral segment with the lateral extremities drawn out into short, sharp points. Legs stout; hind femora with a group of very short black setulae on basal third of ventral surface; 1-2 bristles at near apex on ventral surface; hind tibiae without noticeable hairs, except the usual preapical bristle. Wings slightly yellowish; veins pale brown; venation as *harti*.

Female.—Agrees with the male except that the abdomen is slightly conical in shape, the last segment not noticeably constricted and the small setulae are absent from the hind femora.

Length: 3.5-4.5 mm.

Type locality.—South Haven, Mich., July 14, 1914 (C. A. Hart). Taken by sweeping on the lake shore.

The male is separable from *harti* Malloch, which it most closely resembles, by the shape of the abdomen, the presence of the small setulae at base of the hind femora and smaller number of preapical hind femoral bristles. The female is separable from that of *harti* by the shape of the abdomen, which is conical, while in *harti* the last segment is suddenly contracted. From *bispina* Loew and other species which have the wings and body without dark marks, this species and *harti* may be separated by the buccate head and comparatively small eyes.

Meoneura nigrifrons n. sp.

Male.—Glossy black. Head and its members entirely black, the frons glossy. Mesonotum without pruinescence; scutellum shining, but less glossy than mesonotum. Abdomen glossy black, slightly brownish and less glossy at base. Legs black. Wings whitish, first, second and third veins and the costal vein to apex of the latter dark brown, fourth vein colorless, fifth nearly so. Halteres black.

Frons at vertex over half the width of head; frontal triangle extending almost to anterior margin, along its margins are a few short setulae and beyond its apex on anterior margin of frons are two stronger setulae; ocellar bristles widely divergent; lower two pairs of orbital bristles incurved, upper two pairs curved outwards, between the bristles there is a short setula; antennae normal in size, second joint with distinct dorsal bristle, third joint rounded, arista shorter than anterior width of frons, slightly pubescent; cheek at anterior margin about half as high as eye; diagonal series of bristles consisting of 3-4 of moderate size. Mesonotum finely granulose, disc with numerous black setulae and two pairs of dorso-centrals, the anterior pair rather weak; scutellum more finely and densely granulose than mesonotum, and with four marginal bristles. Abdomen without hairs except on the glossy apical segment; hypopygium small, its surface with a number of short setulae. Legs normal, the fore femora with 3-4 bristles on the posteroventral surface. Costa with short setulae to apex of first vein, both the breaks distinct, second costal division about twice as long as third; third vein ending almost exactly at apex of wing; cross veins very closely approximated, not separated by more than the length of inner cross vein; last section of fifth vein three times as long as penultimate section.

Length: 1 mm.

Type and allotype.—Urbana, Ill., Sept. 6, 1914 (J. R. Malloch). Taken on a window in the basement of the Natural History Building, University of Illinois.

Separable from *lacteipennis* Fallen and *vagens* Fallen by the black frons and halteres.